DOCUMENT RESUME

ED 393 143 CS 509 229

AUTHOR Tozzo-Lyles, Teresa A.; Walsh-Childers, Kim
TITLE Whittle's "Channel One": Effects on Impulsive Preadolescents' Desire for Advertised Products.
PUB DATE Aug 95
NOTE 33p.; Paper presented at the Annual Meeting of the Association for Education in Journalism and Mass Communication (78th, Washington, DC, August 9-12, 1995).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Advertising; *Attitude Measures; Intermediate Grades; *Mass Media Effects; Middle Schools; *Preadolescents; Sex Differences; *Television Commercials; Television Research
IDENTIFIERS Advertising Effectiveness; *Channel One; *Impulsiveness; Middle School Students

ABSTRACT

A field experiment tested effects of "Channel One" commercials on impulsive preadolescent students' purchasing preferences, such as product liking and likelihood of buying regularly advertised products. A total of 67 sixth-grade middle school students participated in the field experiment. Students who viewed "Channel One' daily were in eight first-period classes while students from the control school were in their homeroom class (experimental, N=51; control, N=16). The most significant findings were that more impulsive students were slightly (10%) more likely to want to buy products advertised on "Channel One" than were less impulsive students. Females, regardless of impulsivity, were more likely to predict they would spend more on products advertised, and exhibited more impulsive-type purchasing, compared to their male peers. Future research should concentrate on changes in attitude to products advertised on the program--studies should compare beginning of the school year and end of the school year attitudes. (Contains 5 tables of data, 2 figures, and 31 references.) (Author/NKA)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 393 143

Whittle's *Channel One*:

Effects on Impulsive Preadolescents' Desire for Advertised Products

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

By

Teresa A. Tozzo-Lyles, M.A.,[1] and Kim Walsh-Childers, Ph.D.[2]
University of Florida
Dept. of Surgery, Division of Vascular Surgery, PO Box 100286, (lylest@xray1.xray.ufl.edu),
Gainesville, Florida 32610, (904) 376-1611, X5095,[1]
College of Journalism and Communications, 3019 Weimer Hall, (kwchilde@jou.ufl.edu),
Gainesville, Flordia 32611, (904) 392-6557,[2]

RUNNING HEAD: *Channel One*

[1]This paper is based upon research conducted for a Master's Thesis.

CS509229

BEST COPY AVAILABLE

Abstract

Whittle's *Channel One*:

Effects on Impulsive Preadolescents' Desire for Advertised Products

This field experiment tested effects of *Channel One* commercials on impulsive preadolescent students' purchasing preferences, such as product liking and likelihood of buying regularly advertised products.

The most significant findings were that more impulsive students were slightly (10%) more likely to want to buy products advertised on *Channel One* than were less impulsive students. Females, regardless of impulsivity, were more likely to predict they would spend more on products advertised and exhibited more impulsive-type purchasing, compared to their male peers.

Whittle's Channel One:

Desire for Impulsive Preadolescents to Buy Products

Beginning in the 1960s and especially since the 1970s, television has been a prevalent and influential source for socialization of children's buying patterns and preferences. Early studies of this phenomonon focused on parental interaction, parental education, and family social economic status (SES) as predictors of how children buy and of media effects on their buying behaviors (Ward, Levinson, & Wackman, 1972; Ward, Wackman, & Wartella, 1977; Wimen, 1983).

In recent years, researchers have identified other factors that mediate the effects of the media on desire to buy. Some of these individual differences include the child's age, degree of peer influence and interaction, and to some extent whether the child exhibits any type of risk-taking behavior (Levine, 1987; Levine & McAnarney, 1988; Valenti & Ferguson, 1991). Most of this research has shown that measuring and identifying differences can be important in an everyday context.

The daily cablecast in schools of *Channel One*, a product of Whittle Communications that includes 12-minutes of total programming with two minutes of commercials daily, provides a unique opportunity to view the effects that the program has on preadolescents' desire for advertised products, especially on those students who are more impulsive than others.

CHANNEL ONE

From the onset of Whittle Communication's *Channel One*, controversy has focused mainly on the two minutes of commercial advertisements during each telecast.

Channel One, which began in March 1989 in five pilot high schools, is the brainchild of Chris Whittle and currently is seen in approximately 12,000 schools nationwide by eight million middle- and high-school students (Donaton, 1992; Konrad, 1992; Mueller & Wulfemeyer, 1993).

Schools using the program receive approximately $50,000 worth of free video equipment (television sets, satellite dish). School officials are required to sign a contract stating that they will show the entire program, including the commercials intact, to at least 90 percent of the students daily at a specified time. During this contract period, the school cannot show any other news program to its students. All equipment must be returned if the school decides that it no longer wishes to participate (Greenberg & Brand, 1993).

Why the Controversy?

Parents, teachers and researchers have questioned whether the benefits of receiving the program outweigh the potentially negative consequences of exposing students to the two minutes of commercials. Supporters of *Channel One* argue that their schools receive much needed video equipment. These schools can use the equipment for other instructional purposes. The show broadcasts current news events into the classrooms in a format (i.e., using young moderators) and stories that appeal to the teenage audience. Supporters say the newscast presents "serious news stories" and assists teachers in presenting current events to students via the "power tool" of live television (Rukeyser, 1989-1990).

Opponents of the program, however, contend that the commercials are unnecessary distractions that add nothing to the learning process and compare the commercials on *Channel One* to placing ads in school textbooks (Rudinow, 1989-90). Parents, teachers, and others opposing the program state that children in *Channel One* schools are essentially forced

to watch the same ads they could choose to ignore at home (Martin, 1992).

Statement of Purpose

With more than 1,068 school districts currently hooked up to satellite dishes, television news in schools seems inevitable, but some organizations strongly recommend commercial-free news shows such as "CNN Newsroom" and "Assignment Discover," and not *Channel One* (Graves, 1990).

Channel One's visual appearance -- fast-paced, stylish and full of flashy graphics -- frequently has been compared to that of MTV; Columbia Journalism Review called "the video-game approach to news" (Birmingham, 1990). Many aspects of the news programming seem to prepare the audience for the commercial material that follows. The background music in the news segments begins to change about 30 seconds before the advertisements begin, serving as a lead-in to the commercial by matching the ad's beat. Typically the pace of dialogue in the news segments and the ads speed up to an average 140 words per minute or approximately two times the normal rate of speech (Murray, 1991). The ads also differ from other TV commercials, in that prime time commercials are usually shorter and geared to a more general audience.

Advertising sponsors, such as Nike, PepsiCo, Burger King and others, pay about $157,000 for each 30-second spot on *Channel One*. During the 1991 school year alone, revenues from advertisements on *Channel One* totalled approximately $100 million (Donaton, 1992; Kozol, 1993). Wulfemeyer and Mueller (1992) evaluated five weeks of *Channel One* content during the Spring of 1989. They found that about 86 percent of the commercials evaluated during this time were for products (jeans, food, etc.), with about 15 percent of the commercials being some form of public service announcement.

Whittle supplies *Channel One* sponsors with research that indicates that 58% of students in Whittle schools watch the program, but a National Education Association research project showed that only 40% of students exposed to *Channel One* actually watch the program (Konrad, 1992; Kleinfield, 1991; Rudinow, 1989-90; Supovitz, 1991).

In one study, Fitzgerald (1992) found that fewer than one-fourth of the students surveyed said they paid attention "the whole time." Carlin et al. (1992) found that students and teachers in junior high and senior high schools in Ohio reported attending to *Channel One* at least 65% of the time, with attention to commercials rated lower (51%). Most schools choose to air *Channel One* during homeroom periods, and this could explain the high level of distraction and inattentiveness to the program (Mueller & Wulfemeyer, 1993).

Effects of *Channel One*'s commercials on students viewing the program have been studied on a limited basis. In one study, which surveyed 756 children exposed to *Channel One* daily, students evaluated products advertised on the program more favorably than non-*Channel One* viewers. Researchers found that students viewing the program wanted to purchase products they saw on *Channel One* more than students who were not exposed to the program (Greenberg & Brand, 1993).

Concern over the impact of commercials in schools that receive *Channel One* reflects concern in previous studies of the effects of TV content, especially early Saturday morning advertisements and violence on children. A study by Wulfemeyer and Mueller (1992) showed that approximately 25 percent of their teen subjects said that advertising, in general, assists them in deciding what products they will purchase (i.e., clothes, snacks).

The buying behaviors of these youngsters have a great deal to do with the physical and mental changes brought about as a result of puberty. Because pre-adolescents (10- to 12-year-olds) lack life experiences and are becoming less family-oriented, they are greatly influenced by their peers and are more prone to pattern their behaviors (dressing, hair styles, etc.) after those in their peer group (Slap, 1986).

Adolescence, which can be a time of opportunity and vulnerability, predisposes the youngster to greater sensitivity of outside (peers, etc.) influences (Brown, Walsh-Childers, & Waszak, 1990). Adolescents not only are affected by ads, but also are affected by how the advertised products are presented, with females being especially susceptible to the advertisements because of the constant portrayal of beauty on television commercials. They

are often left feeling self-conscious (lower self-esteem) because they do not resemble the "social norm" (Brown, Childers, & Waszak, 1990).

Impulsiveness and Social Behavior

Impulsiveness, in teenagers and preteenagers, also involves some physiological characteristics that are part of this risk-taking behavior. Although much research has focused on impulsive teenagers and young adults (college students) in a lab setting or as it is related to deviant behavior (drinking, drug abuse, sexual behavior), not much is known about pre-adolescents (ages 10-12) and their impulsive behaviors and decision-making processes.

The struggle for independence usually begins during ages 12 to 14, when their is a decrease of interest in family activities and more of a resistance to parental advice. The period preceding puberty is a time of constant change; family members no longer get much "quality" time with their children and may feel constantly tested; peers become the primary focus of the child's life because s/he wants to feel socially acceptable.

In general, impulsives see their behavior as a product of the environment -- responsibility is placed on someone or something else.

The development of impulsive behavior coincides with two important aspects of the pre-adolescent life stage: physiological and social development. Adolescence is a developmental period that involves changing from childhood to adulthood and includes behavioral fluctuations including increasing movement toward independence, peer acceptance, and rejecting some conventional social behaviors (Levine, 1987).

Ferguson and Valenti (1990) theorize that impulsiveness is associated with a dislike of thinking. If degree of impulsiveness is high, the individual (child) will more likely accept and follow what his or her peers will say and do.

Developmentally, the only aspect of the adolescent that does not change with puberty is the neural system. Chronological age does not correlate well with biological maturation (Slap, 1986). The range of pubertal onset for females is from 8 to 13 years, with completion at 13 to 18, and 95 percent grow most rapidly between 9.7 and 13.3 years. For males, onset is 9.5

to 13.5 years with completion at 13.5 to 17.5, with 95 percent of growth occurring most rapidly between 11.7 and 15.3 years (Irwin & Millstein, 1986, and Peterson, 1987).

Although most studies show that boys consistently have higher levels of most risk-taking behaviors, Heaven (1991) found that for cognitive impulsiveness and for general impulsiveness (i.e., responding positively to "Do you buy things on impulse?") girls were more impulsive than boys. This finding suggests that there are many dimensions to risk-taking behavior.

In younger children (under age 10), impulsivity is often, but not always, part of other behavioral problems, such as attention-deficit hyperactivity disorder (ADHD) (Halperin, Matier, Bedi, Sharma, & Newcorn, 1992).

Children with impulsive personalities are described as "those who tend to respond quickly in problem-solving situations, failing to consider possible alternatives or correctness of their responses and making errors" (Baer & Nietzel, 1991, p. 400). Their results showed that both cognitive and behavioral interventions can improve impulsivity in children's behavior.

Impulsives react differently than those who are less impulsive when presented with real life situations; they attend to messages differently. Valenti and Ferguson (1991) conducted four focus groups with 22 college students and adults (non-students) to discuss messages (about health, safe sex, etc.) with impulsive risk takers. The researchers concluded that impulsives are more challenging to the professional communicator than other risk-takers (i.e. rebellious) because of their unpredictability.

Studies have noted that impulsive individual rarely think about their decisions and demand immediate gratification. For this reason, the commercials on *Channel One* may have greater influence on impulsive preadolescents, especially girls who can be more impulsive than boys. This paper reports the results of a study designed to investigate whether students who view *Channel One* daily are more likely than students who do not view the program at all, to want to buy products regularly advertised on the newscast.

Understanding Impulsivity Through Measures

The impulsive measures of this study were primarily based on the the Offer Self-Image Questionnaire (OSIQ), which has helped researchers understand adolescent males and females. The OSIQ (Offer, 1987) contains 130 items that cover 11 content areas and five different "selves." The more important of these selves for impulsiveness and early-developers are the Psychological Self, Psychological Self, Social Self, Family Self and Family Relationships, and the Coping Self.

Another important measure of impulsiveness is the "causal model of risk-taking behavior" developed by Irwin and Millstein (1986) proposes that age of onset of biological maturity directly influences four psychosocial factors: (1) cognitive scope, (2) self-perceptions, (3) perceptions of social environment, and (4) personal values. These factors could predict risk-taking behavior in the adolescent.

The study of impulsiveness is pertinent in this study because it can assist to better understand the role this characteristic may play in the decision-making process of pre-teens. Not much has been done on this interaction. Impulsiveness may be determined by genetics, surroundings, gender, and degree of parental/familial involvement. To impulsive pre-adolescents, peer preferences, including products used (food, clothing, etc.), can determine the need or desire to purchase the product, or how often the product is purchased.

THE RESEARCH QUESTIONS

Five hypotheses were generated on the relationships between independent (impulsiveness and exposure to *Channel One* newscast) and dependent (recall and buying) variables.

(1) Regular daily viewers of *Channel One* will have a greater desire than non-*Channel One* viewers to buy products advertised on the program.

(2) Pre-adolescent females who are daily viewers of *Channel One* will have greater aided and unaided recall of products advertised on *Channel One* than will males who view *Channel One* daily.

(3) Highly impulsive pre-adolescents who are daily viewers of *Channel One* will have greater aided and unaided recall of products advertised on *Channel One* than will less impulsive pre-adolescents.

(4) Impulsive pre-adolescents who are daily viewers of *Channel One* will have a greater desire to buy more products advertised on *Channel One* than less impulsive pre-adolescents.

(5) Pre-adolescent females who are daily viewers of *Channel One* will have a greater desire than males to buy products regularly advertised on *Channel One*.

Prior to developing this study, the researchers had the opportunity to view some Channel One newscasts. We theorized that because of the age similarity in all students, there would not be big difference in impulsivity between the control and experimental school.

METHOD

A field experiment was done with sixth-graders from two middle schools in a mid-sized southern university community. Students at the experimental school, a public school, viewed *Channel One* daily, while those at the control school (a Catholic elementary and middle school) never watched *Channel One*.

The Experiment

Students who viewed *Channel One* daily were in eight first-period classes while students from the control school were in their homeroom class. A total of 67 students (experimental, N=51; control, N=16) participated.

On the first day, students from both control and experimental schools were asked to complete part one of the questionnaire (one page), which included impulsiveness items.

On the second day children in the control school were shown a video of the same *Channel One* newscast seen in the experimental school, but commercials were professionally deleted from the video so that there were no substantial breaks in between commercial segments; the news spots flowed into each other.

The researcher deleted the commercials in order to prevent contamination of the study in the control school when comparing results with the experimental school.

Impulsiveness Measure

The impulsiveness scale comprised nine items. One of the impulsive questions -- "If someone tells me I am doing something the wrong way, I don't like that and usually get angry or have 'bad feelings" for that person" -- was eliminated because it did not correlate with the

others. The internal consistency was higher when this question was removed from the index (.71 with all items vs. standardized Cronbach's Alpha = .73 when it was not).

The eight items were summed and averaged to create an index, and this index was divided into three categories of high, medium, and low levels of impulsiveness. [2]The low impulsiveness group ranged from .20 to .57, the moderate group ranged from .571 to .99, while the high group ranged from 1.00 to 1.50. Responses were "2" (indicated often), "1" (sometimes), and "0" (never).

[Table 1 about here]

Money. Eight items in the spending scale asked students about spending behavior. The standardized Cronbach's Alpha was .75 for this index.

[Table 2 about here]

A third index was made up of 15 items that asked students to rate their answer about the likelihood of buying products advertised on *Channel One*: Pepsi, Clearasil, Pizza Hut, Reeboks, Magnavox, Oil of Olay, Gator Aid, Cheetos/Fritos, Gillette, Burger King, Noxema, Bubble-icious, Certs, Sure, Secret. For each item, the student indicated whether they definitely would buy the item. This scale was internally consistent, with a standardized Cronbach's alpha of .79.

[Table 3 about here]

Dependent variables

One of the dependent variables, **unaided recall** was a combination of six questions that asked students about *Channel One* commercials.

The questions included: the number of products mentioned on *Channel One* (open-ended question), whether Pepsi or Combo was mentioned, whether a picture was drawn of the advertised product without labeling the product, whether a picture drawn of the advertised product with Pepsi or Combo labeled in the picture, and whether the picture of the advertised product was named on the line below the picture.

The six-item scale was summed and averaged, and had moderate levels of internal

consistency (standardized Cronbach's Alpha .64).

[Table 4 about here]

FINDINGS

The mean age for all students was 11.7 years (SD = .5). Gender was about equally distributed with 48% females (N=32) and 52% males (N=35). About 81% (N=54) of the subjects are white, 12% (N=8) black, and 7% are "other."

When asked about parental educational level ("how far in school do you think your mom/dad has gone?"), 82% (N=55) of all students said their mothers had some college education, and 87% (N=58) said their fathers had some college education.

Although some students received a large amount of money each week for an allowance ($15 or more), most students received considerably less (M=$4.00, SD=$7.13).

Attention Check

When asked if they were at their "desk when *Channel One* started," 91% (N=61) of all students answered "yes," with 73% (N=49) saying they "paid attention to some or all of today's *Channel One* program." Of those in the *Channel One* school, 66% (N=44) said they like to watch newscasts some or all the time, 24% (N=16) said they were interested in commercials on *Channel One*, and 51% (N=34) said they liked the commercials on *Channel One*.

When asked about products advertised on the *Channel One* segment viewed on the day of the experiment, about 71% (N=38) of students in the experimental school mentioned at least one product advertised (Pepsi, Combos, or both).

Analysis Strategy

Analysis of variance (ANOVA) was done with experimental and control schools as a two-level factor and impulsiveness as a three-level factor. Impulsiveness, school, and gender were used as independent variables for almost all dependent variables or indexes (attention, commercial liking, buying behavior). For consistency and uniformity, t-tests were done for all hypotheses.

Tests of Hypotheses

(1): **Regular daily viewers of** Channel One **will have a greater desire than non-**Channel One **viewers to buy more products advertised on the program.**

A t-test was used to analyze differences between schools. This was not supported for schools on likelihood to buy products advertised on *Channel One*. The means for students in the experimental school (1.09) and those in the control school (.97) were not significantly different. No significance was found between highly impulsive females in both schools and and highly impulsive males in both schools. Also, no significance was found when using only low impulsive females in both schools and low impulsive males in both schools.

No significant differences were found between schools with only high impulsive students (males and females).

When using the same t-test (i.e., both schools and comparing differences between genders) for only low impulsive students, a significant main effect was found ([$t(1,23) = 1.89$, $p \leq .04$]; Females, $\underline{M} = 1.1$; Males, $\underline{M} = .8$).

In general, there were no significant differences between students of both schools on their desire to buy products advertised on *Channel One*.

(2): **Pre-adolescent females, who are daily viewers of** Channel One**, will have greater aided and unaided recall of products advertised on** Channel One **than males.**

A t-test was used to analyze differences between genders for those in the experimental school. No main effect was found for gender overall, for high impulsive students overall, for high impulsive students in the experimental school, and for low impulsive students on aided recall of products (Pepsi or Combo) advertised on *Channel One*.

Again, for unaided recall, a t-test was used to analyze differences between genders. No main effect was found for gender overall in both schools, and for high impulsive students in the experimental sschool.

When a t-test was used to analyze differences for low impulsive students only in both schools, a significant main effect was found, ([$\underline{t}(1,21) = 1.92$, $p \leq .04$]; Females, $\underline{M} = .4$; Males, $\underline{M} = .2$). Low impulsive females were more likely than low impulsive males to have greater unaided recall of commercials on *Channel One*.

(3): **Highly impulsive pre-adolescents who are daily viewers of** Channel One **will have greater aided and unaided recall of products advertised on Channel One then less impulsive pre-adolescents.**

A t-test for main effect of impulsiveness on aided recall was not supported. When a t-test was used to compare differences in impulsiveness in the experimental school, but using females only, no significant main effect was found. When using males in the experimental school only, a near significant main effect was found ([$t(1,17) = 1.65$, $p \leq .06$]; Low impulsive, $M = .7$; High impulsive, $M = 1.1$).

Again, a t-test for the main effect of impulsiveness on unaided recall showed no significance. When a t-test was used for main effect of impulsiveness in the experimental school, using females only, no significant main effect was found. When only males were used for this same comparison, a near significant main effect was found ([$t(1, 17) = 1.45$, $p < .08$]; Low impulsive, $M = .2$; High impulsive, $M = .3$).

(4): **Impulsive pre-adolescents who are daily viewers of** Channel One **will have a greater desire to buy more products advertised on** Channel One **than less impulsive pre-adolescents.**

A t-test for main effect of impulsiveness was supported when using students in both schools [$t(1,46) = 2.32$, $p < .01$].

When students in both control and experimental schools were asked about likelihood of buying products advertised on *Channel One*, highly impulsive students ($M = 1.2$) were more likely than low impulsive students ($M = 1.0$) to say they would buy these products. Those who fell in the medium impulsive category were not included for this analysis. Thus the "N" is reduced to 48. When students in the experimental school only were asked about likelihood of buying products advertised on *Channel One*, highly impulsive students ($M = 1.2$) were more likely than low impulsive students ($M = 1.0$) to say they would buy these products. A t-test for main effect of impulsiveness supported this hypotheses [$t(1,35) = 2.23$, $p < .02$].

When using a t-test to compare differences in impulsiveness using the experimental school and females only, no significant main effect was found. When using only males in the same analysis, a significant main effect was found ([$t(1,17) = 2.36$, $p < .02$]; Low impulsive,

M=.9; High impulsive, M=1.2).

High impulsive males in the experimental school are more likely, than low impulsive males, to buy products regularly advertised on *Channel One*.

There was no significance when comparing (t-test) differences of impulsiveness for females and males in the control school only.

(5): **Pre-adolescent females who are daily viewers of** Channel One **will have a greater desire to buy products, that are regularly advertised on** Channel One**, than males.**

A t-test was used to analyze differences between genders for likelihood of buying products on *Channel One*. This was not supported. When pre-adolescent males and females in the experimental school were asked how likely is it that they would buy products regularly advertised on *Channel One*, the means for females (1.1) and males (1.1) were about about the same.

When a t-test was used to analyze differences between genders in the experimental school, using highly impulsive students only, no significant main effect was found. When a t-test was used to analyze differences between genders for low impulsive students only (in experimental school), a near significant main effect was found ([t(1,18) = 1.38, p≤.09); Females, M=1.1; Males, M=.9).

[Table 5 about here]

POST HOC ANALYSIS

ANOVA was used to determine the interactions of impulsiveness with gender for aided and unaided recall of products advertised on *Channel One* (as a scale and with products individually), parental education, race, amount spent weekly (as a scale and with expense categories individually), buying behavior, and attention to *Channel One*, for interactions.

ANOVA was used for likelihood of purchasing each product that was individually listed in the 15-item "Ads" scale with gender and impulsiveness. Although gender did not significantly interact with impulsiveness for any product, there were main effects for gender for: Oil of Olay [Female, M=1.0; Male, M=.3; F(1,44) = 14.77, p<.001], Noxema products

[Female, $\underline{M}=1.0$; Male, $\underline{M}=.3$; $\underline{F}(1,46) = 15.00$, $p<.001$], and Secret deodorant [Female, $\underline{M}=1.2$; Male, $\underline{M}=.3$; $\underline{F}(1,46) = 21.46$, $p<.001$]. Females are more likely to buy beauty and hygience products than males.

A significant main effect was found for impulsiveness on: Gator Aid [Low, $\underline{M}=1.2$; High, $\underline{M}=1.6$; $\underline{F}(1,44) = 4.06$], $p<.05$], Fritos snacks [Low, $\underline{M}=1.0$; High, $\underline{M}=1.5$; $\underline{F}(1,44) = 5.00$, $p<.03$], Bubble-icious bubble gum [Low, $\underline{M}=.9$; High, $\underline{M}=1.3$; $\underline{F}(1,46) = 7.39$, $p<.01$], and Sure deodorant [Low, $\underline{M}=.7$; High, $\underline{M}=1.2$; $\underline{F}(1,46) = 8.37$, $p<.01$]. Impulsives are more likely to buy food and snacks such as Gator Aid, Fritos snacks, Bubble-icious bubble gum, and other products such as Sure deodorant probably because food items seem more appealing, and they may have chosen Sure because it may be a popular item with their peers.

Spending behavior

A significant main effect was found on "never having enough money" to spend [Female, $\underline{M}=.5$; Male, $\underline{M}=.9$; $\underline{F}(1,46) = 3.94$, $p<.05$]. Females are less likely to feel they have little or no money to spend.

A significant interaction was found for impulsiveness and gender on having "money in an account." For males, impulsiveness had no effect on having money in a savings account (Low vs. High Impulsiveness, $M=1.4$ vs. $M=1.5$). But high impulsive females are more likely to have less money in a savings account ($M=1.1$) than females who are low impulsives ($M=1.9$); [$\underline{F}(1,46) = 4.28$, $p<.04$]

[Figure 1 about here]

Impulsiveness and Exposure to Channel One

A significant main effect was found for school on "Did you pay attention to today's *Channel One* show" [Experimental school, $M=.6$; Control school, $M=1.0$; $\underline{F}(1,45) = 6.47$, $p<.01$]. Children in the control school are more likely to have paid attention to the *Channel One* newscast on this particular day.

A significant main effect for school was found for exposure to *Channel One* on "I buy a product because I know it is good" [Experimental, $M=1.4$; Control, $M=1.8$; $\underline{F}(1,46) = 3.95$,

$p < .05$]. Those in the control school were more likely to say that they buy a product because they know it is good.

Impulsiveness with likelihood of buying products and weekly spending

A significant main effect was found for likelihood of buying products advertised on *Channel One* with (average) amount of money spent. The "money" scale included the average amount of money spent each week on clothes, snack food, lunch food, make up, hair products, sports items, electronics and other items. Only low spenders ($N=23$, $M=\$1.18$) and high spenders ($N=7$, $M=\$21.57$) were used for analysis with impulsiveness and likelihood of buying products advertised on *Channel One* [Low, $\underline{M}=.9$; High, $\underline{M}=1.4$; $\underline{F}(1,21) = 4.22$, $p < .05$]. Only low and high spenders were used for the similar reasons that low and high impulsives were used for analysis -- to see if the amount of spending dictated differences for this behavior. Impulsive pre-adolescents who spend more money are more likely to buy products advertised on *Channel One*.

Parental education and race with likelihood of buying products advertised on Channel One

Child's race and father's education interacted to affect the likelihood of getting money from parents to buy something the student wanted [$\underline{F}(1,61) = 7.48$, $p < .01$].

[Figure 2 about here]

Minority students whose father had a high school degree or less indicated a greater likelihood of getting more from parents to buy something they wanted ($\underline{M}=2.0$) than did non-minority students ($\underline{M}=.3$). But among those with fathers who had more than a high school education, minority status made no difference ($\underline{M}=1.1$, non-minority; vs. $\underline{M}=1.2$, minority).

A significant main effect was found on child's race and father's education, and child's race and mother's education on buying: Reeboks [Non-minority, $\underline{M}=1.0$; Minority, $\underline{M}=1.7$; $\underline{F}(1,61) = 10.36$, $p < .002$], Magnavox products [Non-minority, $\underline{M}=1.3$; Minority, $\underline{M}=.7$; $\underline{F}(1,61) = 5.39$, $p < .02$], Fritos snacks [Non-minority, $\underline{M}=1.1$; Minority, $\underline{M}=1.7$; $\underline{F}(1,59) = 7.03$, $p < .01$], and Bubble-icious bubble gum [Non-minority, $\underline{M}=1.1$; Minority, $\underline{M}=1.5$; $\underline{F}(1,61) = 5.06$, $p < .03$]. Non-minority students said they were more likely to buy Magnavox products,

while minority students said they were more likely to buy Reeboks, Fritos snacks, and Bubble-icious gum.

A significant main effect was also found for Mother's education on Pepsi [High school or less, $\underline{M}=1.7$; Some college of more, $\underline{M}=1.3$; $F(1,61) = 3.95$, $p<.05$]. Students whose mother had a high school education or less, were more likely to pick Pepsi. Students in the experimental school whose mother's had a high school education or less were more likely to say they "liked the commercials" on *Channel One* [High school or less, $\underline{M}=1.0$; Some college or more $\underline{M}=.6$; $F(1,44) = 6.07$, $p<.02$].

DISCUSSION

This study investigated possible relationships between impulsiveness in pre-adolescents and desire to purchase products regularly advertised on *Channel One*.

Although much research has been done on how students attend to the overall segments of the newscast, how much knowledge is gained from the daily viewing, and specifically, attention to commercials and commercial liking, no research has provided insight on how impulsive pre-adolescents react to *Channel One*.

Summary of Hypotheses

In general, there was no significant difference between genders on aided and unaided recall of products advertised on *Channel One*, but females in the experimental school were more likely than males to want to buy products that were regularly advertised on the newscast. No significant difference was seen in degree of impulsivity on aided and unaided recall of products advertised on *Channel One*, but high impulsive preadolescents in the experimental school were more likely than low-impulsives to buy products that were advertised on the newscast. No difference was found between the *Channel One* and experimental school in likelihood to buy products advertised on the newscast.

Other Findings

Degree of impulsiveness did not differ between control and experimental schools, but those in the control school were more likely to say they would buy a product because they

knew "it was good." Although most of the hypotheses were not supported, other interesting findings emerged from this study, such as knowledge about how gender interacts with impulsiveness on spending money, and the degree to which pre-adolescents are likely to buy specific products usually advertised on *Channel One*.

Females, regardless of degree of impulsiveness, are less likely to have enough money to spend and less likely to have money in savings, than their male peers. Students who regularly view *Channel One* were more likely to buy products regularly advertised on the newscast. These results are partially supported by findings from Heaven (1991), whose study found that females are generally more impulsive by nature, including buying behavior, and Greenberg and Brand (1993), who found that those who are daily viewers of *Channel One* are more likely to have a favorable attitude towards products advertised on the newscast.

More impulsive students were more likely to buy products (in general) advertised on *Channel One*, and also more impulsive students in the experimental school were more likely to buy specific products (Gator Aid, Fritos snacks). Impulsive students who spend more money on a weekly basis for specific products (make up, sports items, etc.) are more likely to want to buy products advertised on *Channel One*.

When analyzing the effect of parental education and (child's) race on buying products advertised on *Channel One*, some significance was found for child's race on specific products (Reeboks, Magnavox, Fritos snacks, and Bubble-icious bubble gum).

Limitations of the Study

The researcher acknowledges that the "desire to buy" a product is no indication that the product will actually be bought. The questionnaire was worded in the manner presented because this was consistent with the wording of other surveys and questionnaires used in studies for this age group. Therefore, acknowledging that a student would like to buy a product does not conclude that they will actually buy that product or influence a parent or other family member to buy the product.

Although the questionnaire was tailored for children in the 10-12 year old range, there

should have been more specific questions presented about the commercials on *Channel One*. The questions were specifically revised for students 10 - 12 years of age, but some questions still were not clear.

As for the four scales, three had an internal consistency that was moderately high (.70 or above), while the scale for unaided recall of products was less consistent (.64). The findings for unaided recall may have less validity than the other findings.

Validity

This study was a quasi-experimental design (a "Nonequivalent Control Group Design") because of the impossibility of randomly assigning students to in *Channel One* school.

No great differences in impulsiveness existed between children in the control and experimental schools according to the analysis of variance. But the atmosphere and students in the control school was quite different, partially due to the school being smaller than the experimental school, a different curriculum, and the control school being private (parochial) and Christian. It is difficult to ascertain what degree of educational differences in the two schools. This aspect was not compared in the study.

Although children in the control school were actually distracted from their routine, they seemed to be able to answer all questions with more leisure than those in the Channel One school. This change in routine could have affected their attention and recall to the *Channel One* tape they viewed, minus the commercials.

The results of this study should not be generally applied to other schools, even in the same community because this would be premature.

In addition, the study should have had a larger control group. The number of students used in a control group was due to time constraints and only a limited number of control schools were available for the study.

Another limitation of the study was that the attitude of the children who viewed *Channel One* daily, toward the newscast, could not be observed over the course of the school year.[4] For many students in the sixth-grade classrooms of the experimental school, this was

their first exposure to *Channel One*. Students may be more interested, or be more attentive to the newscast, at the begining of the school year.

The researcher believes that *Channel One* could be beneficial, or at the least, cause little harm to pre-adolescents exposed to the newscast on a daily basis.

The school environment should be considered as a whole, and not as a part of a whole. If integrated into the school curriculum, *Channel One* has the potential to help students better understand current events. The format of *Channel One*, which includes young narrators, produces stories that are visually attractive to the teenager and pre-teenager.

The controversy surrounding *Channel One* is predominatly focused on the two minutes of commercials during the newscast, and administrators are concerned about the influence of commercials and advertisements. The commercials on *Channel One* can be used to teach students how advertisers and producers use atmosphere, music, color, and characters to sell their products. Also, there are many other forms of advertisements that inhabit schools, such as magazines, videos, and vending machines.

No significant difference was seen in how likely students in the control and experimental school were to pick products advertised on *Channel One*. Since students in both schools were exposed to these products and to commercials outside the classroom, *Channel One* has little effect, in general, on how many students desired to buy these products.

Females from both schools were more likely to have less money to spend and have less money in savings, and were more likely to buy certain products, such as beauty aids, regularly advertised on *Channel One*. Highly impulsive students were more likely to buy products generally advertised on *Channel One*, and were also more likely to buy specific products, such as food and snacks.

The literature on teenage females show that they are more likely to have greater body dissatisfaction and eating disorders and attend to TV and media portrayals of females as glamorous. This may be because the onset of puberty for females begins approximately one year before males, and females follow what they see on TV and print.

Pre-adolescent females and highly impulsive students seem to be more likely to buy products, and females also seem to have greater impulsive spending behavior than their male counterparts.

Future Research

Future research in the area of impulsiveness and studies on *Channel One* should concentrate on changes in attitude to products advertised on the program. Studies should compare beginning of school year and end of school year attitudes.

Two schools that view *Channel One* should be chosen, in addition to two control schools. The population of both the experimental and control groups should be larger, giving more diversity to the study.

FOOTNOTES

[1]Students from the experimental school were chosen from classrooms whose teachers volunteered to participate in the study. Students in these classrooms were given permission forms to take home and return to their first-period class teachers. Teachers were briefed about the study and instructed how to collect the permission forms. The control school had only one sixth-grade classroom, but the procedure for collecting consent forms, and instruct- ing the teacher was the same as in the *Channel One* school.

[2]Only those high in impulsiveness (N=24) or low impulsives (N=26) were used in this analysis. Those with moderate impulsiveness scores were eliminated (N=14).

[3]Only those high in impulsiveness (N=24) or low impulsives (N=26) were used in this analysis. Those with moderate impulsiveness scores were eliminated (N=14).

[4]This study was conducted at the end of the 1992-93 school year.

Table 1

Impulsiveness Scale Items*

Individual Item	Mean	SD
1. I laugh a lot without being able to control what I am doing.	1.09	.71
2. I am afraid something will happen.	1.08	.64
3. I get angry very easy over most things.	.94	.67
4. When others are demanding or want things from me and want them right NOW, I cannot stay calm.	.90	.68
5. I stay mad at people for a long time for something they did.	.84	.67
6. I cannot control my temper.	.78	.57
7. If someone tells me I am doing something the wrong way, I don't like that and usually get angry or have "bad feelings" for that person.[a]	.66	.59
8. I cannot control myself.	.58	.66
9. I cry a lot without being able to control what I am doing.	.43	.61
10. I get very much out of control (violent) if I do not get "my way."	.33	.56
Scale Mean = .76, SD = .33		

BEST COPY AVAILABLE

Table 2

Average Amount of Money Spent Each Week on Specific Purchases

Individual Item	Mean	SD
1. Amount spent on clothes	$15.39	$37.29
2. Amount spent on sports items	7.86	22.97
3. Amount spent on food (snacks)	5.92	8.69
4. Amunt spent on electronic games	5.77	18.79
5. Amount spent on food (school lunch)	3.74	7.45
6. Amount spent on hair products	2.99	5.43
7. Amount spent on other items	1.92	6.29
8. Amount spent on make-up	.53	1.45
Scale Mean = $5.27, SD = $9.29		

Table 3

Likelihood of Buying Brands Advertised on Channel One

Advertised Products	Mean	SD
1. Pizza Hut	1.46	.61
2. Burger King	1.42	.64
3. Pepsi**	1.36	.65
4. Gator Aid	1.32	.68
5. Certs products	1.21	.60
6. Fritos/Cheetos (snacks)**	1.19	.73
7. Reeboks	1.18	.70
8. Bubble-icious bubble gum	1.17	.67
9. Magnavox	1.12	.81
10. Sure deodorant	.94	.72
11. Clearasil	.91	.72
12. Secret deodorant	.71	.78
13. Gillette	.71	.76
14. Noxema	.67	.79
15. Oil of Olay	.56	.73
	Scale Mean = 1.06, SD = .37	

Table 4

Unaided Recall of Products Advertised on *Channel One*

Question	Mean	SD
1). In the space provided below, please write in your own words, everything you remember from the *Channel One* program today. (Open-ended question; only number of statements about the products were used here.)	.31	.74
(2). Please draw something you remember seeing on the *Channel One* program today? After you draw this picture, write under it what it is.		
(a) Drawing of product, no label	.05	.21
(b) Drawing of product with a label	.06	.24
(c) Named product under picture	.10	.31
(3). What things were advertised on the commercials on *Channel One*?		
(a) Pepsi	.59	.50
(b) Combos	.35	.48
Scale Mean = .27, SD = .26		

Table 5

Aided and Unaided Recall

Independent Variable	(Means)/Statistic for Aided Recall	(Means)/Statistic for Unaided Recall
Gender:		
Female	(.80)	(.32)
Male	(.85)	(.24)
	t(1,49)=.29, p<.39	t(1,49)=1.09, p<.14
Impulsiveness:		
Low	(.76)	(.30)
High	(.94)	(.30)
	t(1,37)=.97, p<.17	t(1,37)=.06, p<.48

Likelihood of Buying Advertised Products

	Means	Statistic
Gender:		
Female	1.14	t(1,46)=.78, p<.22
Male	1.05	
Impulsiveness:		
Low	.95	t(1,46)=2.32, p<.01
High	1.18	
Channel One School:		
Yes	1.09	t(1,62)=1.18, p<.12
No	.97	

BEST COPY AVAILABLE

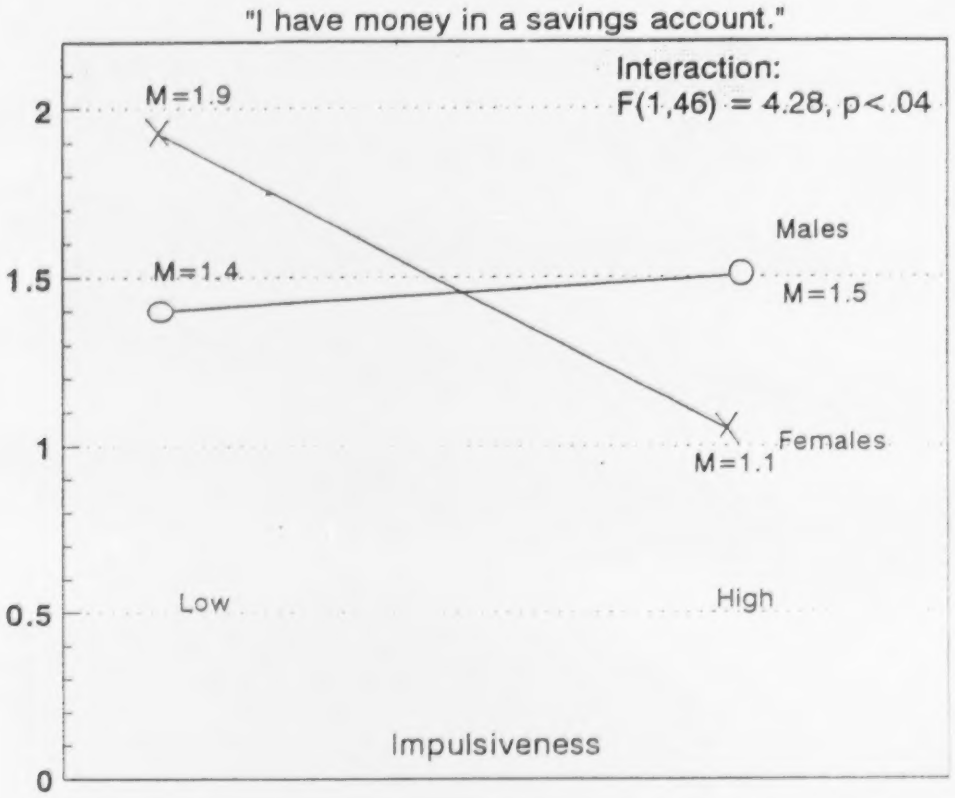

Figure 1 -- Amount of Savings by Impulsiveness and Gender

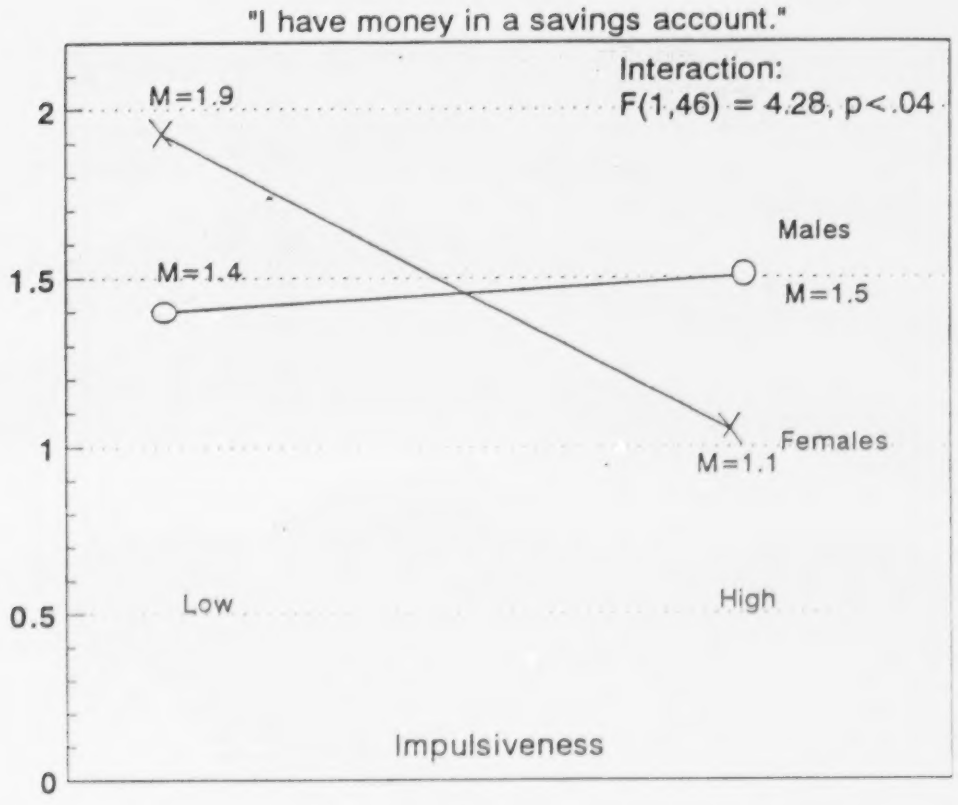

Figure 2 -- Getting Money from Parents by Dad's Education & Race

BEST COPY AVAILABLE

REFERENCES

Baer, R. A. & Nietzel, M. T. (1991). Cognitive and behavioral treatment of impulsivity in children: A meta-analytic review of the outcome literature. Journal of Clinical Child Psychology, 20, 400-412.

Birmingham, J. (1990). Marketers--and revisionists--are taking a hard look at Whittle. Adweek's Marketing Week, 31, 20-28.

Brown, J., Childers, K. W., & Waszak C. S. (1990). Television and adolescent sexuality. Journal of Adolescent Health Care, 11, 62-70.

Donaton, S. (1992). Chinks showing in Whittle allure. Advertising Age, 63, 1, 30-31.

Ferguson, M. A. & Valenti, J. M. (1990). Communicating with the risk taker: Effects of source, target and format on information seeking and concern. Paper presented to Public Relations Interest Group, International Communication Association, Dublin, Ireland, June, 1990.

Fitzgerald, M. (1992). Classroom TV has negligible effect: Study examines Whittle Communication's Channel One. Editor & Publisher, 125, 20-21.

Graves, B. (1990). Classrooms tune in! School Administrator, 47, 8-11, 14-16.

Greenberg, B. S., & Brand, J. E. (1993). Television news and advertising in schools: The "Channel One" controversy. Journal of Communication, 43, 143-151.

Halperin, J. M., Matier, K., Bedi, G., Sharma, V., & Newcorn, J. H. (1992). Specificity of inattention, impulsivity, and hyperactivity to the diagnosis of attention-deficit hyperactivity disorder (ADHD). Journal of the American Academy of Child and Adolescent Psychiatry, 31, 190-196.

Heaven, P. S. L. (1991). Venturesomeness, impulsiveness, and Eysenck's personality dimensions: A study among Australian adolescents. Journal of Genetic Psychology, 152, 91-99.

Irwin, C. E., & Millstein, S. G. (1986). Biopsychosocial correlates of risk-taking behaviors during adolescence. Journal of Adolescent Health Care, 7, 82s-97s.

Kaye, E. (Ed.) (1979). The ACT guide to children's television. Boston: Beacon Press.

Kleinfield, N. R. (1991). What is Chris Whittle teaching our children? New York Times Magazine, 140, 32, 46, 49, 79, 88.

Konrad, W. (1992, Jan. 27). How good is Chris Whittle teaching our children? Business Week, 103.

Levine, S. V. (1987). The myths and needs of contemporary youth. Adolescent Psychiatry, 14, 48-62.

Levine, M. D., & McAnarney, E. R. (Eds.). (1988). Early adolescent transitions. Lexington: D.C. Heath & Co.

Mueller, B., & Wulfemeyer, K. T. (1993, Dec/Jan). Commercial speech directed at captive minds: The regulation of advertising in public secondary schools. The High School Journal, 110-117.

Murray, J. (1991). TV in the classroom. News of Nike? Extra!, 4, 6.

Offer, D. (1987). The mystery of adolescence. Adolescent Psychiatry, 14, 7-27.

Peterson, G. (1987). Role transitions and role identities during adolescence: A symbolic interactionist view. Journal of Adolescent Research, 2, 237-254.

Rukeyser, W. (1989-90). No hidden agenda: A response to Rudinow. Education Leadership. 47, 74-75.

Rutman, L. (1977). Evaluation research methods: A basic guide. Beverly Hills: Sage Publications.

Slap, G. B. (1986). Normal physiological and psychosocial growth in the adolescent. Journal of Adolescent Health Care, 7, 13s-23s.

Supovitz. J. (1991). Tuning in on current events: The uses and effects of video news programs in high schools in Mississippi and North Carolina. Unpublished paper: Southeastern Educational Improvement Laboratory, Research Triangle Park, North Carolina.

Valenti, J. M., & Ferguson, M. A. (1991). Effective communication with the impulsive risk taker: Hypotheses from four focus groups. Presented to the Public Relations Division, Association for Education in Journalism & Mass Communication, Boston, MA, August 8, 1991.

Ward, S., Levinson, D., & Wackman, D. (1972). Children's attention to television advertising. In Pattern's of Use, Washington, DC: Government Printing Office, pp. 491-515.

Ward, S., & Wackman, D. B. (1972). Children's purchase influence attempts andparental yielding. Journal of Marketing Research, 9, 316-319.

Ward, S., Wackman, D. B., & Wartella, E. (1977). How children to learn to buy. Beverly Hills, CA: Sage Publications, Inc. 269 pp.

Weinberg, P., & Gottwald, W. (1982). Impulsive consumer buying as a result of emotions. Journal of Business Research, 10, 43-57.

Wiman, A. R. (1983). Parental influence and children's responses to television advertising. Journal of Advertising, 12, 12-18.

Wulfemeyer, K. T., & Mueller, B. (1992). Channel One and commercials in classrooms: Advertising content aimed at students. Journalism Quarterly, 69, 724-742.